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To: Nabil Fayoumi cc: "Li, Ning/STL"
Subject: RD/RA Work Plan

01/06/03 11:41 AM

Nabil, as you requested, we have reviewed the RD/RA workplan prepared by URS and provided by Solutia, dated December 19, 2002. The workplan is arranged in four sections, each of which is discussed below. Because there is little technical specificity presented in the document, comments are accordingly general in nature.

Section 1 (Introduction)

No comments.

Section 2 (Overview of RD/RA Process)

This section describes the conceptual design and construction of the barrier wall. The plan states that several design tasks are ongoing including mapping the bedrock surface, evaluating compatibility of grout mix with onsite groundwater, and constructing a test cell to assess jet grout geometry and installation methods. In addition, a groundwater extraction system consisting of three partially-penetrating wells is planned. It is important that these tasks be described in detail in the Prefinal Design Document so that the various approaches may be properly evaluated and refined as necessary.

Section 2 also summarizes the proposed groundwater monitoring program and the sediment/surface water monitoring program. The former states that four clusters of three monitoring wells will be constructed for water quality monitoring and that four sets of piezometer pairs will be constructed to monitor water levels either side of the barrier wall. It would be helpful if the relative locations of these monitoring points could be presented on a figure. Regarding the sediment/surface water monitoring program, the workplan states that an *Apparent Effects Threshold* approach and *Toxic Units* approach will be used to establish protective constituent concentrations for the two media. It is recommended that the precise methodologies to be used, together with any technical assumptions made, be clearly described in the Prefinal Design document (perhaps as separate appendices).

Section 3 (Remedial Design)

No comments.

Section 4 (Remedial Action)

The remedial action described in this section does not address the construction of the "test cell" mentioned in Section 2. Also, the schedule provided as Figure 1 does not include any information regarding test cell construction. The construction and evaluation of a test cell is a key component of the project and should be detailed in the Prefinal Design document, if not sooner (perhaps as the subject of a supporting technical memorandum.)



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To: Nabil Fayoumi cc: "Li, Ning/STL"
Subject: RD/RA Workplan - Review addendum

01/06/03 01:12 PM

Nabil - I neglected to mention that Section 3 (Remedial Design) states that the volume of waste soils potentially generated could be "up to 40,000 cubic yards". This seems like a large volume given that one of the chief advantages of using Rotosonic Drilling is generation of much lower IDW amounts. It would be helpful if the assumptions behind this estimate were presented. Furthermore, it is unclear whether the "planned" stockpiling of soil atop Site R is administratively feasible. What other options for handling these waste soils have been evaluated, and how did stockpiling on Site R become the preferred approach? I have no recollection of this issue being previously discussed with the project team.

Finally, with regard to the three stormwater sampling events specified in the RI/FS Support Sampling Plan, I would recommend that a third storm event be sampled consistent with the approved workplan.

Please call if I can be of further assistance.

Regards - Peter

In summary, the workplan generally explains the RD/RA process as it pertains to the Sauget sites. However, considerable technical information needs to be provided before a valid review of the design can be accomplished. It is vital that the Prefinal Design document contain the necessary information to permit our team to fully evaluate the proposed barrier wall/ groundwater extraction/groundwater monitoring system design and construction methods.

Please call with any questions.

Regards - Peter